

## ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276

THOMAS V. SKINNER, DIRECTOR

217/782-0610

August 15, 2001

Midwest Generation, LLC Environmental, Health and Safety Dept. One Financial Place 440 South LaSalle Street, Suite 3500 Chicago, Illinois 60605

Re:

Midwest Generation, LLC Crawford Generating Station NPDES Permit No. IL0002186

Modification of NPDES Permit (After Public Notice)



NPDES SUPPORT &
TECHNICAL ASSIST BR.
EPA, REGION 5

## Gentlemen:

The Illinois Environmental Protection Agency has reviewed the request for modification of the above-referenced NPDES Permit and issued a public notice based on that request. The final decision of the Agency is to modify the Permit as follows:

Include the intermittent discharge of impounded stormwater from the on-site dredged material disposal facility in the description of wastestreams that comprise the discharge from Outfall C01.

Enclosed is a copy of the modified Permit. You have the right to appeal this modification to the Illinois Pollution Control Board within a 35 day period following the modification date shown on the first page of the permit.

Should you have any question or comments regarding the above, please contact Beth Unser of my staff.

Very truly yours,

'Thomas G. McSwiggin, P.É.

Manager, Permit Section

Division of Water Pollution Control

TGM:BAU:99101901.daa

Attachment: Modified Permit

cc: Records

Compliance Assurance Section

Des Plaines Region

US EPA

GEORGE H. RYAN, GOVERNOR

Illinois Environmental Protection Agency

Division of Water Pollution Control

1021 North Grand Avenue East

Post Office Box 19276

Springfield, Illinois 62794-9276

#### NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

Modified (NPDES) Permit

Expiration Date: April 30, 2005

Issue Date: April 24, 2000 Effective Date: May 1, 2000 Modification Date: August 15, 2001

Name and Address of Permittee:

Midwest Generation, LLC Environmental, Health and Safety Dept. One Financial Place 440 South LaSalle Street, Suite 3500 Chicago, Illinois 60605 Facility Name and Address:

Midwest Generation, LLC Crawford Generating Station 3501 South Pulaski Chicago, Illinois 60603

Discharge Number and Name:

Receiving Waters:

001 Condenser Cooling Water and House Service Water

A01 Demineralizer Regenerant Wastes

B01 Unit #7 and #8 Boiler Blowdown and Boiler Drain

C01 Recirculating Wastewater Treatment System Blowdown

D01 Intake Screen Backwash

002 Area 14 Runoff (Boiler Room Area)

Chicago Sanitary and Ship Canal

In compliance with the provisions of the Illinois Environmental Protection Act, Title 35 of Ill. Adm. Code, Subtitle C and/or Subtitle D, Chapter 1, and the Clean Water Act (CWA), the above-named permittee is hereby authorized to discharge at the above location to the above-named receiving stream in accordance with the standard conditions and attachments herein.

Permittee is not authorized to discharge after the above expiration date. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit the proper application as required by the Illinois Environmental Protection Agency (IEPA) not later than 180 days prior to the expiration date.

Thomas G. McSwiggin, P.E. Manager, Permit Section

Division of Water Pollution Control

TGM:BAU:99101901.daa

## Effluent Limitations and Monitoring

CONCENTRATION

LIMITS mg/l

30 DAY AVG. DAILY MAX. 30 DAY DAILY AVG. MAX.

SAMPLE FREQUENCY SAMPLE TYPE

**PARAMETER** 

1. From the modification date of this permit until the expiration date, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:

Outfall(s): 001 Condenser Cooling Water and House Service Water\*\*

This discharge consists of:

Approximate Flow

355.71 MGD

Condenser Cooling Water
 House Service Water

Demineralizer Regenerant Wastes
 Boiler Blowdown

J. Boiler Blowdown

6. Recirculating Wastewater Treatment System Blowdown

7. Intake Screen Backwash

Approximate Flow

9.0 MGD 0.035 MGD 0.055 MGD

Intermittent 1.05 MGD Intermittent

Flow (MGD)

See Special Condition 1

Daily

Continuous

Temperature

See Special Conditions 3, 4 and 5

Daily

Continuous

Total Residual Chlorine/Total Residual Oxidant\*

0.2

1/Week

\*Concentration Curve

<sup>\*</sup>See Special Conditions 6 and 17.

<sup>\*\*</sup>See Special Condition 18.

## Effluent Limitations and Monitoring

	LOAD L	IMITS	CONCENT	RATION		
	lbs/	day	LIMITS mg/l			
	30 DAY	DAILY	30 DAY	DAILY	SAMPLE	SAMPLE
PARAMETER	AVG.	MAX.	AVG.	MAX.	<b>FREQUENCY</b>	TYPE

<sup>1.</sup> From the modification date of this permit until the expiration date, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:

## Outfall(s): A01 Demineralizer Regenerant Wastes

This discharge consists of:

Approximate Flow

Demineralizer Regenerant Wastes
 0.024 MGD

Flow (MGD)	See Special Condition 1		V 1 9	Daily	Continuous
otal Suspended Solids		15	30	1/Month	Grab*
Oil and Grease		15	20	1/Year	Grab

<sup>\*</sup>Sample type shall be 8-hour composite if the equalization tank is bypassed for maintenance purposes.

## Effluent Limitations and Monitoring

	LOAD L		CONCENT				
	30 DAY	DAILY	30 DAY	DAILY		SAMPLE	SAMPLE
PARAMETER	AVG.	MAX.	AVG.	MAX.		FREQUENCY	TYPE

1. From the modification date of this permit until the expiration date, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:

Outfall(s): B01 Unit #7 and #8 Boiler Blowdown and Boiler Drain

					TO THE PARTY OF TH	
This Discharge Consists	s of:			Appr	oximate Flow	
Boiler Blowdown     Boiler Drain					0.036 MGD Intermittent	
Flow (MGD)	See Special Condition 1				Daily	Continuous
Total Suspended Solids		15	30		1/Month	8-hour Composite
Oil and Grease		15	20		1/Year	Grab

SAMPLE

## NPDES Permit No. IL0002186

## Effluent Limitations and Monitoring

		LIMITS /day	CONCENT LIMITS	RATION S ma/l	
	30 DAY	DAILY	30 DAY	DAILY	SAMPLE
PARAMETER	AVG.	MAX.	AVG.	MAX.	FREQUENCY

1. From the modification date of this permit until the expiration date, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:

Outfall(s): C01 Recirculating Wastewater Treatment System Blowdown\*\*

This	s discharge consists of:		Approximate Flow
1.	Ash sluice water		0.5 MGD
2.	Ash hopper overflow		0.25 MGD
3.	Coal pile runoff		Intermittent
4.	Non-Chemical metal cleaning wastes		Intermittent
5.	Demineralizer filter backwash		0.01 MGD
3.	Boiler and turbine building floor drains	3.5	0.03 MGD
-/.	Fuel oil handling area runoff		Intermittent
8.	Unit #7 air compressor cooling water		0.14 MGD
9.	Coal storage area #2 runoff		Intermittent
10.	Settling basin area #3 runoff		Intermittent
11.	Ash pile area #18 runoff		Intermittent
12.	Yard drainage area #15		Intermittent
13.	Ash hopper area #16		Intermittent
14.	South detention basin consisting of area runoff from:		Intermittent
	a. Transmission terminal areas #5, 6 and 12		
	b. Transformer area #7		
	c. Oil storage areas #8 and 9		9)
	d. Power block area #11		
	e. Dock conveyor area #22		8
15.	Impounded stormwater from the dredged material disposal facility		Intermittent
222			= 4

Flow (MGD)	See Special Condition 1			Daily	Continuous
Нс	See Special Condition 2			1/Week	Grab
Total Suspended Solids	F	15	30	1/Week	24 Hour Composite
Oil and Grease	4	15	20	1/Week	Grab
Iron		1.0	1.0	1/Month*	24 Hour Composite
Copper		0.5	1.0	1/Month*	24 Hour Composite

<sup>\*</sup>The sampling frequency for total iron and total copper shall be daily during discharge of non-chemical metal cleaning wastes. At all other times the sampling frequency shall be once per month.

\*\*See Special Condition 18.

Outfall(s): D01 Intake Screen Backwash

See Special Condition 11

Outfall: 002 Area 14 Runoff (Boiler Room Area)

See Special Condition 21.

#### Special Conditions

<u>SPECIAL CONDITION 1</u>. Flow shall be reported as a daily maximum and monthly average. In the event no discharge occurs during a given month, a statement of "No discharge" shall be reported on the DMR for that month.

<u>SPECIAL CONDITION 2.</u> The pH shall be in the range 6.0 to 9.0. The monthly minimum and monthly maximum values shall be reported on the DMR form.

SPECIAL CONDITION 3. The receiving waters are designated as Secondary Contact and Indigenous Aquatic Life Waters by Section 302.408, Illinois Administration Code, Title 35, Chapter 1, Subtitle C, as amended. These waters shall meet the following standard:

Temperatures shall not exceed 93°F (34°C) more than 5% of the time, or 100°F (37.8°C) at any time at the edge of the mixing zone which is defined by Rule 302.102 of the above regulations.

SPECIAL CONDITION 4. In lieu of the requirements of Section 302.211(d) and (e), Illinois Administrative Code, Title 35, Subtitle C, as amended, effluent shall not alone or in combination with other sources cause temperatures in the main channel of the Lower Des Plaines River at the I-55 Bridge to exceed the temperatures set forth in the following table, except in accordance with the allowable monthly excursions detailed below:

	<u>Jan</u>	<u>Feb</u>	<u>Mar</u> ·	<u>Apr</u> 1-15	<u>Apr</u> 16-30		<u>May</u> 16-30			<u>July</u>	Aug	<u>Sept</u>	Oct	Nov	Dec
°F	60	60	65	73	80	85	90	90	91	91	91	90	85	75	65

These standards may be exceeded by no more than 3°F during 2% of the hours in the 12-month period ending December 31, except that at no time shall Midwest Generation's plants cause the water temperature at the I-55 Bridge to exceed 93°F. (Midwest Generation's plants continue to be subject to the Secondary Contact Standards at the point of discharge).

<u>SPECIAL CONDITION 5</u>. Permittee shall comply with all temperature limitations as imposed by the Pollution Control Board's order in AS 96-10, dated October 3, 1996.

SPECIAL CONDITION 6. Total residual oxidant shall not be discharged from any single generating unit for more than two hours per day. The daily mean concentration of total residual oxidant shall be based on a concentration curve. The concentration curve shall be generated using grab samples with a sampling frequency of five minutes or less over the exposure time. The exposure time is defined to be from the point of first detectable measurement to the point of the last detectable measurement of total residual oxidant. Concentration curves shall be submitted with Discharge Monitoring Reports. The frequency and duration of the oxidant dosing period plus the amount of chlorine or bromine applied shall be reported on the Discharge Monitoring Reports. For reporting purposes, the daily discharge shall be the average of all non-zero values measured in a day and the monthly average shall be the average of all daily discharges. Discharge Monitoring Reports shall indicate whether chlorine or bromine compounds were used during the month,

For the purpose of determining compliance, the highest single instantaneous TRC/TRO concentration measured during compliance curve sampling on any day will be regarded as the daily maximum concentration. Total residual oxidant concentration shall be measured and reported in terms of total residual chlorine.

SPECIAL CONDITION 7. This facility has the following discharges of storm water associated with industrial activity:

The east oil water separator and switch house building roof drains, which discharge to the Chicago municipal combined sewer system.

SPECIAL CONDITION 8. There shall be no discharge of polychlorinated biphenyl compounds.

SPECIAL CONDITION 9. There shall be no discharge of complexed metal bearing wastestreams and associated rinses from chemical metal cleaning unless this permit has been modified to include the new discharge.

SPECIAL CONDITION 10. Intake monitoring at Crawford Generating Station pursuant to Section 316(b) of the CWA was not required by USEPA in letters to Commonwealth Edison Company (former owner & permittee) dated February 19, 1975 and June 1, 1976. It is determined that no intake monitoring or modification is being required by IEPA for reissuance of this NPDES Permit.

<u>SPECIAL CONDITION 11</u>. The discharge from Outfall D01 is limited to Chicago Sanitary and Ship Canal make-up water intake screen backwash, free from other discharges. Adequate maintenance of the intake screen system is required to prevent the discharge of floating debris collected on intake screens back to the canal.

#### Special Conditions

<u>SPECIAL CONDITION 12.</u> Samples taken in compliance with the effluent monitoring requirements shall be taken at a point representative of the discharge, but prior to entry into the receiving stream.

<u>SPECIAL CONDITION 13</u>. The permittee shall record monitoring results on Discharge Monitoring Report Forms using one such form for each discharge each month.

The completed Discharge Monitoring Report forms shall be submitted to IEPA no later than the 28th day of the following month, unless otherwise specified by the permitting authority.

Discharge Monitoring Reports shall be mailed to the IEPA at the following address:

Illinois Environmental Protection Agency Division of Water Pollution Control Compliance Assurance Section 1021 N. Grand Avenue East Post Office Box 19276 Springfield, Illinois 62794-9276

SPECIAL CONDITION 14. The upset provisions of 40 CFR 122.41(n) are hereby incorporated by reference.

<u>SPECIAL CONDITION 15</u>. The Agency may modify this permit during its term to incorporate biomonitoring requirements and additional limitations or requirements based on the biomonitoring results. Modifications under this condition shall follow public notice and opportunity for hearing.

SPECIAL CONDITION 16. If an applicable effluent standard or limitation is promulgated under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act and that effluent standard or limitation is more stringent than any effluent limitation in the permit or controls a pollutant not limited in the NPDES Permit, the Agency shall revise or modify the permit in accordance with the more stringent standard or prohibition and shall so notify the permittee.

<u>SPECIAL CONDITION 17.</u> A discharge limit of 0.05 mg/l (instantaneous maximum) shall be achieved for total residual oxidant when bromine biocides are used for condenser biofouling control, in accordance with Special Condition 6. Total residual oxidant shall be measured and reported in terms of total residual chlorine. Construction of treatment facilities which may be necessary to meet the limit for total residual oxidant may not be started until a construction permit has been issued by the Agency.

SPECIAL CONDITION 18. The Agency has determined that the effluent limitations in this permit constitute BAT/BCT for storm water which is treated in the existing treatment facilities for purposes of this permit reissuance, and no pollution prevention plan will be required for such storm water. In addition to the chemical specific monitoring required elsewhere in this permit, the permittee shall conduct an annual inspection of the facility site to identify areas contributing to a storm water discharge associated with industrial activity, and determine whether any facility modifications have occurred which result in previously-treated storm water discharges no longer receiving treatment. If any such discharges are identified the permittee shall request a modification of this permit within 30 days after the inspection. Records of the annual inspection shall be retained by the permittee for the term of this permit and be made available to the Agency on request.

<u>SPECIAL CONDITION 19</u>. In the event the permittee shall require the use of water treatment additives not previously used in the station's main condensers, the permittee shall request a modification in the permit in accordance with the standard conditions, Attachment H.

SPECIAL CONDITION 20. The use or operation of this facility shall be by or under the supervision of a Certified Class K operator.

## SPECIAL CONDITION 21. STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

- A. A storm water pollution prevention plan shall be developed by the permittee for the storm water associated with industrial activity at this facility. The plan shall identify potential sources of pollution which may be expected to affect the quality of storm water discharges associated with the industrial activity at the facility. In addition, the plan shall describe and ensure the implementation of practices which are to be used to reduce the pollutants in storm water discharges associated with industrial activity at the facility and to assure compliance with the terms and conditions of this permit.
- B. The plan shall be completed within 180 days of the effective date of this permit. Plans shall provide for compliance with the terms of the plan within 365 days of the effective date of this permit. The owner or operator of the facility shall make a copy of the plan available to the Agency at any reasonable time upon request.

#### Special Conditions

- C. The permittee may be notified by the Agency at any time that the plan does not meet the requirements of this condition. After such notification, the permittee shall make changes to the plan and shall submit a written certification that the requested changes have been made. Unless otherwise provided, the permittee shall have 30 days after such notification to make the changes.
- D. The discharger shall amend the plan whenever there is a change in construction, operation, or maintenance which may affect the discharge of significant quantities of pollutants to the waters of the State or if a facility inspection required by paragraph G of this condition indicates that an amendment is needed. The plan should also be amended if the discharger is in violation of any conditions of this permit, or has not achieved the general objective of controlling pollutants in storm water discharges. Amendments to the plan shall be made within the shortest reasonable period of time, and shall be provided to the Agency for review upon request.
- E. The plan shall provide a description of potential sources which may be expected to add significant quantities of pollutants to storm water discharges, or which may result in non-storm water discharges from storm water outfalls at the facility. The plan shall include, at a minimum, the following items:
  - A topographic map extending one-quarter mile beyond the property boundaries of the facility, showing: the facility, surface water bodies, wells (including injection wells), seepage pits, infiltration ponds, and the discharge points where the facility's storm water discharges to a municipal storm drain system or other water body. The requirements of this paragraph may be included on the site map if appropriate.
  - 2. A site map showing:
    - The storm water conveyance and discharge structures;
    - ii. An outline of the storm water drainage areas for each storm water discharge point;
    - iii. Paved areas and buildings;
    - Areas used for outdoor manufacturing, storage, or disposal of significant materials, including activities that generate significant quantities of dust or particulates.
    - v. Location of existing storm water structural control measures (dikes, coverings, detention facilities, etc.);
    - vi. Surface water locations and/or municipal storm drain locations
    - vii. Areas of existing and potential soil erosion;
    - viii. Vehicle service areas;
    - ix. Material loading, unloading, and access areas.
  - 3. A narrative description of the following:
    - The nature of the industrial activities conducted at the site, including a description of significant materials that are treated, stored or disposed of in a manner to allow exposure to storm water;
    - Materials, equipment, and vehicle management practices employed to minimize contact of significant materials with storm water discharges;
    - iii. Existing structural and non-structural control measures to reduce pollutants in storm water discharges;
    - iv. Industrial storm water discharge treatment facilities;
    - v. Methods of onsite storage and disposal of significant materials;
  - 4. A list of the types of pollutants that have a reasonable potential to be present in storm water discharges in significant quantities.
  - An estimate of the size of the facility in acres or square feet, and the percent of the facility that has impervious areas such as pavement or buildings.
  - A summary of existing sampling data describing pollutants in storm water discharges.

#### Special Conditions

- F. The plan shall describe the storm water management controls which will be implemented by the facility. The appropriate controls shall reflect identified existing and potential sources of pollutants at the facility. The description of the storm water management controls shall include:
  - Storm Water Pollution Prevention Personnel Identification by job titles of the individuals who are responsible for developing, implementing, and revising the plan.
  - Preventive Maintenance Procedures for inspection and maintenance of storm water conveyance system devices such as oil/water separators, catch basins, etc., and inspection and testing of plant equipment and systems that could fail and result in discharges of pollutants to storm water.
  - Good Housekeeping Good housekeeping requires the maintenance of clean, orderly facility areas that discharge storm water.
     Material handling areas shall be inspected and cleaned to reduce the potential for pollutants to enter the storm water conveyance system.
  - 4. Spill Prevention and Response Identification of areas where significant materials can spill into or otherwise enter the storm water conveyance systems and their accompanying drainage points. Specific material handling procedures, storage requirements, spill clean up equipment and procedures should be identified, as appropriate. Internal notification procedures for spills of significant materials should be established.
  - 5. Storm Water Management Practices Storm water management practices are practices other than those which control the source of pollutants. They include measures such as installing oil and grit separators, diverting storm water into retention basins, etc. Based on assessment of the potential of various sources to contribute pollutants, measures to remove pollutants from storm water discharge shall be implemented. In developing the plan, the following management practices shall be considered:
    - Containment Storage within berms or other secondary containment devices to prevent leaks and spills from entering storm water runoff;
    - Oil & Grease Separation Oil/water separators, booms, skimmers or other methods to minimize oil contaminated storm water discharges;
    - iii. Debris & Sediment Control Screens, booms, sediment ponds or other methods to reduce debris and sediment in storm water discharges;
    - iv. Waste Chemical Disposal Waste chemicals such as antifreeze, degreasers and used oils shall be recycled or disposed of in an approved manner and in a way which prevents them from entering storm water discharges.
    - v. Storm Water Diversion Storm water diversion away from materials manufacturing, storage and other areas of potential storm water contamination;
    - vi. Covered Storage or Manufacturing Areas Covered fueling operations, materials manufacturing and storage areas to prevent contact with storm water.
  - 6. Sediment and Erosion Prevention The plan shall identify areas which due to topography, activities, or other factors, have a high potential for significant soil erosion and describe measures to limit erosion.
  - 7. Employee Training Employee training programs shall inform personnel at all levels of responsibility of the components and goals of the storm water pollution control plan. Training should address topics such as spill response, good housekeeping and material management practices. The plan shall identify periodic dates for such training.
  - Inspection Procedures Qualified plant personnel shall be identified to inspect designated equipment and plant areas. A tracking
    or follow-up procedure shall be used to ensure appropriate response has been taken in response to an inspection. Inspections
    and maintenance activities shall be documented and recorded.
- G. The permittee shall conduct an annual facility inspection to verify that all elements of the plan, including the site map, potential pollutant sources, and structural and non-structural controls to reduce pollutants in industrial storm water discharges are accurate. Observations that require a response and the appropriate response to the observation shall be retained as part of the plan. Records documenting significant observations made during the site inspection shall be submitted to the Agency in accordance with the reporting requirements of this permit.

Modification Date: August 15, 2001

#### NPDES Permit No. IL0002186

#### Special Conditions

- H. This plan should briefly describe the appropriate elements of other program requirements, including Spill Prevention Control and Countermeasures (SPCC) plans required under Section 311 of the CWA and the regulations promulgated thereunder, and Best Management Programs under 40 CFR 125.100.
- The plan is considered a report that shall be available to the public under Section 308(b) of the CWA. The permittee may claim
  portions of the plan as confidential business information, including any portion describing facility security measures.
- J. The plan shall include the signature and title of the person responsible for preparation of the plan and include the date of initial preparation and each amendment thereto.

#### REPORTING

- K. The facility shall submit an annual inspection report to the Illinois Environmental Protection Agency. The report shall include results of the annual facility inspection which is required by Part G of the Storm Water Pollution Prevention Plan of this permit. The report shall also include documentation of any event (spill, treatment unit malfunction, etc.) which would require an inspection, results of the inspection, and any subsequent corrective maintenance activity. The report shall be completed and signed by the authorized facility employee(s) who conducted the inspection(s).
- L. The first report shall contain information gathered during the one year time period beginning with the effective date of coverage under this permit and shall be submitted no later than 60 days after this one year period has expired. Each subsequent report shall contain the previous year's information and shall be submitted no later than one year after the previous year's report was due.
- M. Annual inspection reports shall be mailed to the following address:

Illinois Environmental Protection Agency Division of Water Pollution Control Compliance Assurance Section Annual Inspection Report 1021 N. Grand Avenue East P.O. Box 19276 Springfield, Illinois 62794-9276

N. If the facility performs inspections more frequently than required by this permit, the results shall be included as additional information in the annual report.

# STATE OF ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

IL 532-0357 ADM 39 054-002 Reglusela Reglusela

Subject Midwest Generation-Crawford Data IL0002186 Reviewed by B. Unsur "30 Day Public Notice" Review 7-25-01: received a request for additional into from Prairie Rivers Network. Into sent 7-30-01. No further comments received 8-03-01: received a letter from NIPC indicating they have no objection 09-01: received a telephone call from Cynthia Krunde (50°) requesting that a copy of the draft permit be faxed to Abert Ettinger. The draft was faxed at 10:50 am. No comments were received. No other comments received during the 30-day Public Notice period. ACTION: Issue Permit.